

Twist to matricing: Restoration of adjacent proximal defects in a novel manner

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ABSTRACT

The quality treatment in an efficient way is the road map to successful clinical practice. Various methods are employed to achieve goals. Refurbishment of the adequate marginal ridge, proximal contact, and contour are the prime challenges in restoring two adjacent proximal defects. This paper presents an overview of achieving satisfactory proximal restorations in a time saving innovative manner.

Key words: Composite, contact, contour, restoration

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INTRODUCTION

In the contemporary dental practice, a clinician is hard pressed to deliver quality service in an efficient way. Attaining satisfactory contact and contour in a Class II composite restoration in the minimum possible time has always been a challenge to the clinician. Availability of newer matrix systems such as sectional ring matrices has simplified this procedure to a greater extent. Multiple Class II defects can easily be restored using these systems simultaneously.^[1] Restoration of two adjacent Class II defects poses an added obstacle, requiring placement of two different retainers separately, thus, increasing the chairside time. An innovative time-saving solution for adjacent Class II defects has also been advocated using Tofflemire's retainer.^[2] This article explains an innovative clinical technique which may provide helpful time-saving solution to the dentist in restoring adjacent Class II defects

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using sectional matrix system without compromising the quality of the restoration in an economic way.

CLINICAL TECHNIQUE

Technique

In this technique, we utilized two ring matrices to stabilize three precontoured transparent sectional matrix bands to restore three teeth simultaneously. In the present technique, a single ring (Filaydent, Mumbai, India) secures two sectional bands at a time. In addition, specific elastic wedges (Filaydent, Mumbai, India) were used to obtain optimal tooth separation as well as band adaptation. This was, thereafter, followed by routine restorative procedures [Figure 1a-d].

Clinical case

A 30-year-old female patient reported to the dental clinic with the chief complaint of food lodgment in left lower back tooth region. Intraoral examination revealed the presence of dislodged mesio-occlusal restoration in tooth 36 and faulty disto-occlusal amalgam restoration in tooth

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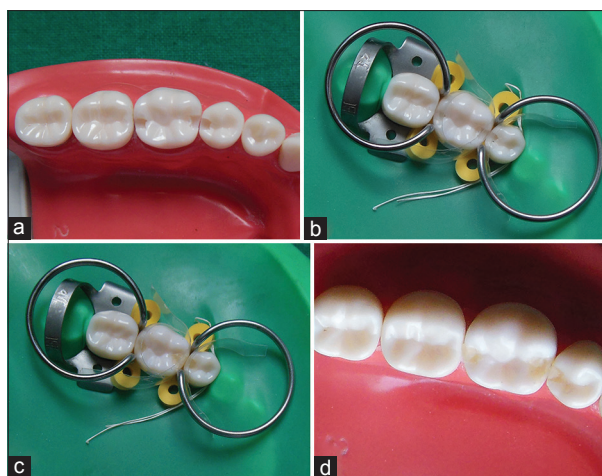


Figure 1: (a) Prepared conservative Class II cavities in second premolar and first molar; (b) precontoured transparent matrices, elastic wedges and sectional rings placed simultaneously for all defects; (c) completed restoration; (d) finished and polished restorations

35 [Figure 2a]. The patient was advised re-restoration using composite for both the teeth. The faulty restoration was removed from tooth 35 and preparations were modified to receive composite restoration in relation to teeth 35 and 36, respectively. Teeth were then isolated followed by matrix band placement. Matricing involved placement of two thin sectional precontoured bands (Filaydent, Mumbai, India) simultaneously followed by placement of an elastic wedge (Filaydent, Mumbai, India) to obtain adequate adaptation and tooth separation. Additional support and stability of band was achieved using a sectional ring (Filaydent, Mumbai, India) [Figure 2b]. Thereafter, teeth were restored simultaneously using routine bonding, restorative and finishing procedures [Figure 2c and d].

DISCUSSION

Reconstruction of natural proximal contact and contour is utmost essential to obtain functional harmony. While restoring composites, precontoured matrix bands establish better contact and contour compared to straight matrices.^[3]

Although, shortcuts accompany few limitations, their scientific utilization might result in the quality outcome. This novel technique provided the clinician an opportunity to restore adjacent proximal defects in an efficient way. The elastic wedges placed between the bands successfully provided adequate gingival isolation and tooth separation. Elastic wedge gently pushed the interproximal gingival tissue as well as adapted the band in a uniform manner following the contour of gingival margins of the preparation.

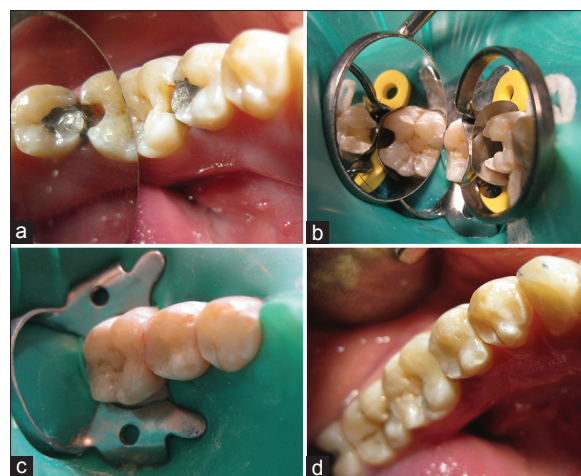


Figure 2: (a) Preoperative view showing Class II defect in tooth 35 and faulty Class II restoration in tooth 36; (b) band and wedge assembly in place; (c) both restorations completed; (d) finally finished restorations

Maximum achievable rapid tooth separation should not exceed the thickness of periodontal ligament of concerned tooth. Placement of two bands at a time requires additional tooth separation. Thus, the matrix bands should be chosen in such a way that the total thickness of both the bands does not exceed the thickness of periodontal ligament so as adopted in this technique.

On the negative side, this technique cannot be employed successfully if the bucco-lingual extension of the proximal lesion is wide due to an inability in achieving adequate contour. Although, clinically acceptable contact and contours of the restoration were achieved in the present technique, it still requires scientific validation and provides scope for future research related to the technique and materials utilized in the restoration of multiple proximal defects.

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Conflicts of interest

There are no conflicts of interest.

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